



MAP OF TRANSMISSION AND GENERATING FACILITIES

Govt
Prints

PRAIRIE PROVINCES

Parala Inland Water branch

CAI MT 51

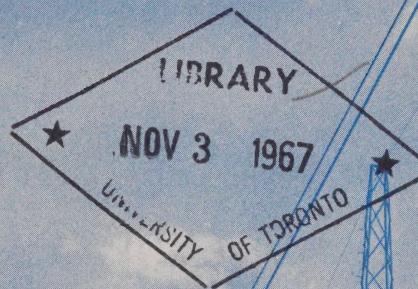
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ELECTRIC POWER IN CANADA

1964



CAI MT 51
S 22



MAP OF
**TRANSMISSION
AND
GENERATING
FACILITIES**

Prairie Provinces

DEPARTMENT OF NORTHERN AFFAIRS AND
NATIONAL RESOURCES

WATER RESOURCES BRANCH

ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1965

Cat. No. B32-865/2

Annual Performance Report									
Category	Type	Sub-Type	Metric	Current Status		Historical Trends		Future Outlook	
				Value	Description	Min	Max	Target	Notes
Financial	Revenue	Sales	Total Revenue	\$120M	Annual sales growth of 10%.	\$100M	\$140M	\$130M	Stable growth projected.
Financial	Revenue	Profit	Gross Profit Margin	35%	Consistent margin across all products.	30%	40%	38%	Optimizing cost structures.
Operational	Production	Efficiency	Production Rate	1500 units/h	High efficiency with minimal downtime.	1400 units/h	1600 units/h	1550 units/h	Investing in automation.
Operational	Production	Quality	Defect Rate	0.5%	Exceptional quality control.	0.4%	0.6%	0.5%	Continuous improvement.
Customer	Retention	Engagement	Avg. Session Length	10 min	High user engagement.	8 min	12 min	10.5 min	Expanding user base.
Customer	Retention	Retention	Churn Rate	2.5%	Low churn rate.	2.0%	3.0%	2.8%	Offering loyalty programs.
Product	Innovation	Development	New Features Launched	5	Fast-paced innovation cycle.	4	6	5	Introducing AI integration.
Product	Innovation	Usage	User Satisfaction	4.2/5	High satisfaction levels.	4.0/5	4.5/5	4.3/5	Improving user interface.
Market	Market Share	Global	Global Share	15%	Competitive market share.	10%	20%	16%	Strategic partnerships.
Market	Market Share	Local	Local Share	20%	Strong local presence.	15%	25%	18%	Local market expansion.

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HYDRO

HYDRO

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.

Alberta

1	Spray	Spray Diversion	CP	1951	1960	875	2	62,000	124,000	40,400	80,800
2	Rundle	Spray Diversion	CP	1951	1960	318	1	23,000	17,000	29,750	46,750
3	Ghost	Bow	CP	1929	1954	105	2	18,000	66,000	12,750	21,150
4	Cascade	Cascade	CP	1942	1957	320	2	23,000	46,000	17,000	34,000
5	Horseshoe	Bow	CP	1953	1955	72	2	4,680	24,360	3,375	5,625
6	Kananaskis	Bow	CP	1913	1951	68	2	6,000	24,000	3,400	9,560
7						70	1	12,000		16,360	
8	Bearspaw	Bow	CP	1954	-	48	1	20,750	20,750	15,300	15,300
9	Pocaterra	Kananaskis	CP	1955	-	185	1	18,400	18,400	13,500	13,500
10	Barrier	Kananaskis	CP	1947	-	135	1	13,500	13,500	9,560	9,560
11	Interlakes	Kananaskis	CP	1955	-	98	1	6,900	6,900	5,040	5,040
	Three Sisters	Spray Diversion	CP	1951	-	50	1	3,600	3,600	3,400	3,400
Total capacity of plants under 1,500 kw.									1,940		1,430
Total capacity of turbines connected directly to mechanical equipment									-		
Total (all plants)									412,450		290,790

Saskatchewan

1	Squaw Rapids	Saskatchewan	SPC	1963	1964	107	6	46,000	276,000	33,500	201,000
2	Island Falls	Churchill	CRPC	1930	1959	56	3	16,500		11,880	
							3	19,000		18,000	
							1	19,000	125,500	17,100	106,740
3	Waterloo Lake	Charlot	EMR	1961	-	63	1	10,000	10,000	7,800	7,800
4	Wellington Lake	Charlot	CMSC	1939	1960	70	2	3,300	6,600	2,400	4,800

Total capacity of plants under 1,500 kw.

- -

Total capacity of turbines connected directly to mechanical equipment

- -

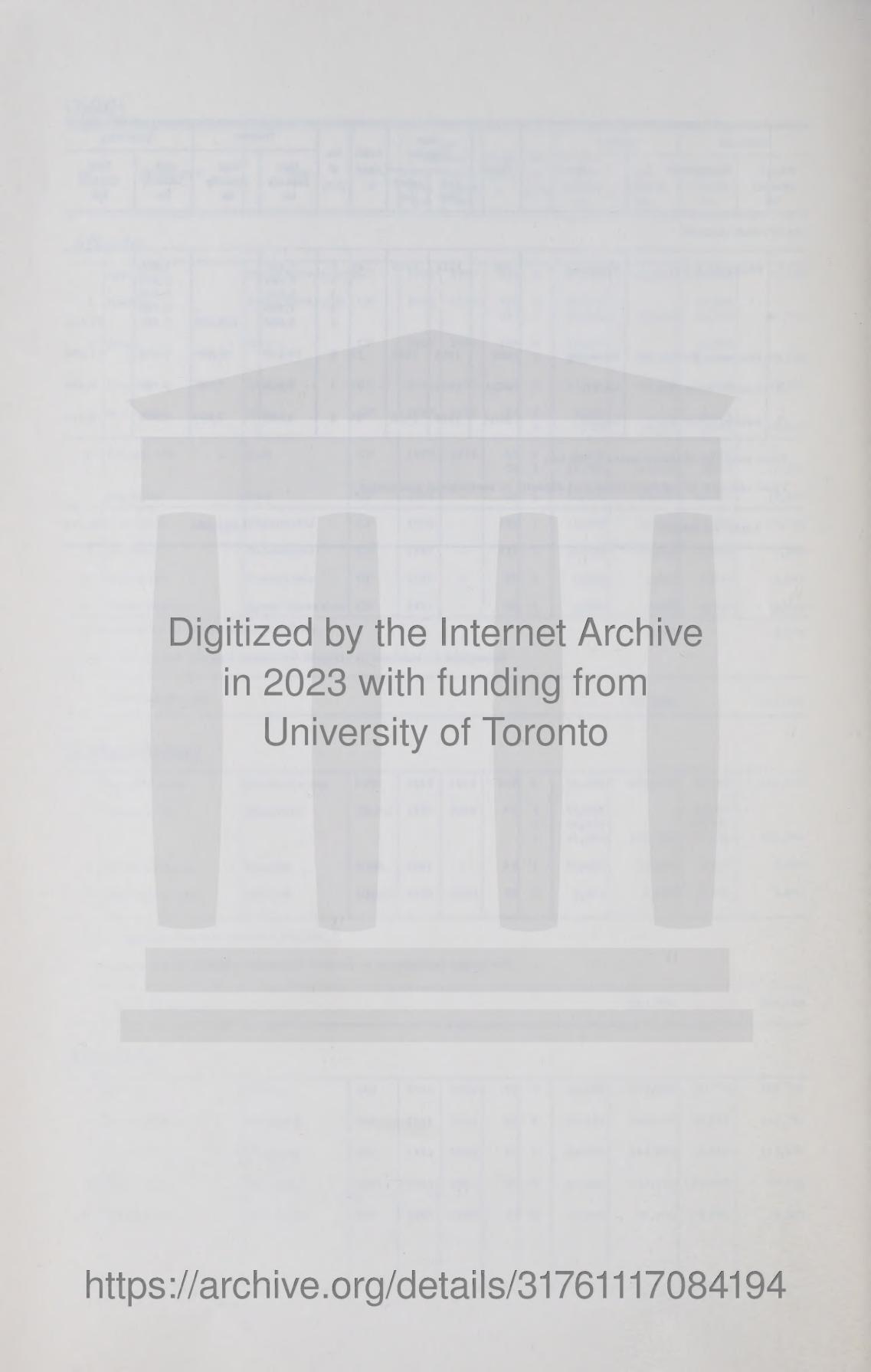
Total (all plants)	418,100	320,340
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Manitoba

1	Kelsey	Nelson	MH	1960	1961	50	5	42,000	210,000	33,750	168,750
2	Seven Sisters	Winnipeg	MH	1931	1952	66	6	33,333	225,000	27,625	165,750
3	Great Falls	Winnipeg	MH	1923	1928	58	6	28,000	168,000	18,900	113,400
4	Pine Falls	Winnipeg	MH	1951	1952	37	6	19,000	114,000	13,950	83,700
5	Slave Falls	Winnipeg	CW	1931	1948	30	8	12,000	96,000	9,000	72,000

HYDRO

No.	Development	River	Owner	Year Installed		Rated Head ft.	No. of Units	Turbines		Generators	
				First Unit	Latest Unit			Unit Capacity hp.	Total Capacity hp.	Unit Capacity kw.	Total Capacity kw.
MANITOBA (Cont'd)											
6	Pointe du Bois	Winnipeg	CW	1911	1925	45	5	5,200		3,000	
						3		6,800		5,000	
						3		6,900		5,200	
						3		7,300		5,200	
						2		8,000	105,000	5,200	71,600
7	McArthur Falls	Winnipeg	MH	1954	1955	23	8	10,000	80,000	7,650	61,200
8	Laurie River No. 2	Laurie	SGM	1958	-	55	1	7,000	7,000	5,400	5,400
9	Laurie River No. 1	Laurie	SGM	1950	1952	55	2	3,500	7,000	2,475	4,950
Total capacity of plants under 1,500 kw.											
Total capacity of turbines connected directly to mechanical equipment											
Total (all plants)											
									1,012,000		746,750



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THERMAL

THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.
<i>Alberta</i>										
1	Edmonton	Edmonton	CE	1939	1963	Gas, oil	S	2	15,000 30,000 75,000	
							GT	2	30,000	330,000
2	Wabamun	Wabamun	CP	1956	1962	Gas, coal	S	2	66,000	
							IC	1	150,000	282,000
3	Battle River	Forestburg	CU	1956	1964	Coal, oil	S	2	32,000	64,000
4	Vermilion	Vermilion	CU	1948	1961	Gas	S	4	2,250	
							GT	1	30,000	39,000
5	Medicine Hat	Medicine Hat	CMH	1929	1953	Gas	S	1	3,000	
							IC	1	5,000	
							IC	1	30,000	38,000
6	Lethbridge	Lethbridge	CL	1931	1961	Gas	S	1	3,375	
							IC	2	5,000	
							GT	2	10,000	33,375
7	Hinton	Hinton	NWPP	1956	1957	Gas, wood-waste, oil	S	1	20,000	
							IC	1	1,100	
							IC	1	1,000	22,100
8	Sturgeon	Valleyview	CU	1958	1961	Flare gas	GT	1	10,000	
							IC	1	8,500	18,500
9	Clover Bar	Edmonton	CCCL	1953	1953	Gas	S	3	6,000	18,000
10	Drumheller	Drumheller	CU	1948	1951	Coal	S	2	7,500	15,000
11	Duvernay	Duvernay	WC	1953	1958	Gas	S	3	300	
							IC	1	1,200	
							IC	6	500	
							GT	1	8,437	13,537
12	Fairview	Fairview	CU NU NU	1954	1960	Gas	IC	1	1,200	
							IC	3	3,000	
							IC	1	1,200	11,400
13	Sentinel	Coleman	EKPC	1927	1929	Coal	S	2	5,000	10,000
14	Fort Saskatchewan	Fort Saskatchewan	SGM	1954	1959	Gas	S	2	2,500	5,000
15	Rimbey	Rimbey	BA	1960	1963	Gas	S	4	1,000	4,000
16	Grande Prairie	Grande Prairie	CU	1948	1955	Gas, oil	IC	1	800	
							IC	1	600	
							IC	1	2,500	3,900
17	Taber	Taber	CSF	1950	1960	Gas, oil	S	1	2,000	
							IC	1	1,675	3,675
18	Whitecourt	Whitecourt	PAPC	1958	1962	Gas	IC	2	300	
							IC	3	800	
							GT	1	3,000	
19	Jasper	Jasper	NU	1941	1964	Oil	IC	1	1,200	
							IC	1	474	
							IC	1	96	
							IC	1	500	
							IC	1	300	2,570
20	Edmonton	Edmonton	DPW	1960	-	Gas	GT	1	2,200	2,200
21	Picture Butte	Picture Butte	CSF		1964	Gas	S	1	1,250	
							IC	1	750	2,000

THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.

ALBERTA (Cont'd)

22	Athabasca	Athabasca	NU	1953	1961	Gas	IC	1 2	1,200 300	1,800
23	Worsley	Worsley	NU	1963	1963		S	1 1	864 650	1,514
Total capacity of plants 1,500 kw. and over (not listed above)										4,000
Total capacity of plants under 1,500 kw.										7,246
Total (all plants)										935,817

Saskatchewan

1	Boundary Dam	Estevan	SPC	1959	1960	Coal	S	2	66,000	132,000
2	Queen Elizabeth	Saskatoon	SPC	1958	1959	Gas, oil, coal	S	2	66,000	132,000
3	A.L. Cole	Saskatoon	SPC	1929	1957	Goal, oil, gas	S	1 1 2 1	10,000 15,000 25,000 30,000	105,000
4	Regina	Regina	CR	1925	1960	Oil, gas	S	1 1 1 1	15,000 5,000 20,000 30,000	
							GT	1	23,360	93,360
5	Estevan	Estevan	SPC	1929	1957	Coal, gas	S	1 1 1 1 1 1	1,500 1,250 5,000 15,000 20,000 30,000	72,750
6	Kindersley	Kindersley	SPC	1955	1958	Gas	IC	3	3,000	
							GT	2	10,000	29,000
7	Swift Current	Swift Current	SPC	1954	1957	Oil	IC	2 4	1,275 3,000	14,550
8	Eldorado	Eldorado	EMR	1952	1956	Resid- ual oil	IC	3 1 4	392 382 2,250	10,558
9	Flin Flon	Flin Flon (Saskatchewan)	HBMS	1929	1951	Coal, oil	S	1 1	1,000 6,000	7,000
Total capacity of plants 1,500 kw. and over (not listed above)										10,000
Total capacity of plants under 1,500 kw.										4,207
Total (all plants)										610,425

Manitoba

1	Brandon	Brandon	MH	1957	1958	Coal, gas, oil	S	4	33,000	132,000
2	Selkirk	Selkirk	MH	1960	1960	Coal, oil	S	2	66,000	132,000

THERMAL

No.	Station	Location	Owner	Year Installed		Fuel	Type of Prime Mover	Generators		
				First Unit	Latest Unit			No.	Unit Capacity kw.	Total Capacity kw.
MANITOBA (Cont'd)										
3	Amy Street	Winnipeg	CW	1924	1954	Coal	S	2 1 1	5,000 15,000 25,000	50,000
4	The Pas	The Pas	MH	1948	1962	Oil	IC	1 2 1 1	1,100 1,000 750 400	4,250
5	Churchill	Churchill	NHB	1931	1955	Grain refuse, oil, coal	S IC	2 1 1 1	1,500 600 200 250	4,050
6	Fort Garry	Winnipeg	MSC	1940	1953	Oil	S	1 1	1,500 2,500	4,000
7	Lynn Lake	Lynn Lake	SGM	1955	1961	Oil	IC	1 1 1	175 1,000 2,160	3,335
8	Thompson	Thompson	INCO		1958	Oil	IC	2	1,500	3,000
9	Grand Rapids	Grand Rapids	MH	1961	1963	Oil	IC	2	1,000	2,000
Total capacity of plants 1,500 kw. and over (not listed above)										9,236
Total capacity of plants under 1,500 kw.										2,217
Total (all plants)										346,088

GT - Gas Turbine, IC - Internal Combustion, S - Steam

OWNER CODE INDEX

CODE	OWNER
BA	British American Oil Company
CCCL ,	Canadian Chemical Company Limited
CE	City of Edmonton
CL	City of Lethbridge
CMH	City of Medicine Hat
CMSC	Consolidated Mining and Smelting Co. of Canada Ltd.
CP	Calgary Power Ltd.
CR	City of Regina
CRPC	Churchill River Power Company
CSF	Canadian Sugar Factories Limited
CU	Canadian Utilities Limited
CW	City of Winnipeg
DPW	Department of Public Works, Government of Alberta
EKPC	East Kootenay Power Company Limited
EMR	Eldorado Mining and Refining Limited
HBMS	Hudson Bay Mining and Smelting Company Limited
INCO	International Nickel Company of Canada Limited
MH	Manitoba Hydro
MSC	Manitoba Sugar Company Limited
NHB	National Harbours Board, Government of Canada
NU	Northland Utilities Limited
NWPP	North Western Pulp and Power Limited
PAPC	Pan American Petroleum Corporation
SGM	Sherritt-Gordon Mines Limited
SPC	Saskatchewan Power Corporation
WC	Western Chemicals Limited

